

Executive Summary



Maxwell Pond, man-made impoundment of Black Brook

In a combined sewer system, where stormwater and sewage are collected in the same pipes, the resulting combined flow may discharge untreated into a river or other body of water under certain rain or snowmelt conditions. Under the Federal Clean Water Act, the United States Environmental Protection Agency (EPA) is requiring that cities develop abatement plans to reduce or eliminate these combined sewer overflows (CSOs). The City of Manchester, NH has CSOs that discharge to local waterways and the City has been working diligently to abate these discharges over the past six years.

This Supplemental Environmental Projects Program (SEPP), developed by the EPA, New Hampshire Department of Environmental Services, and the City of Manchester as part of the City's long-term CSO control strategy, sought to achieve greater environmental and public health benefits by implementing a broad-based environmental protection program in conjunction with infrastructure improvements to abate CSOs. This approach involved projects that benefited other areas of the City's environment, such as urban ponds, streambanks, and children's health. Under the program, the residents received greater direct benefits and the environment received added attention and care in some environmentally sensitive areas.

The SEPP lasted over six years from September 15, 1999 to December 31, 2006, slightly longer than the originally anticipated five years. The direct cost to the City of implementation was \$5.6 million. However, additional funding and in-kind donations were received by many of the projects, resulting in an additional \$785,855 towards project implementation.

A brief overview of the individual projects of the SEPP follows.

Land Preservation

The Nature Conservancy accepted stewardship of a 602-acre preserve within Manchester. As a result, the rare Atlantic White Cedar/Giant Rhododendron / Black Gum ecosystem on Hackett Hill has been protected.

Stormwater Management – Investigations to characterize the stormwater collection system were combined with stormwater treatment and public education projects to improve the quality of stormwater entering local waterways.



Ray Brook, outlet of Dorr's Pond



Giant Rhododendron in Manchester Cedar Swamp

Streambank Stabilization and Erosion Control –

Inventories to locate major erosion and trash dumping sites were completed, followed by demonstration projects to determine the best erosion control and public access construction techniques.

Urban Ponds Restoration – In addition to volunteer cleanups, public education projects, and water quality monitoring, specific structural water quality improvements were completed at several local ponds.

Environmental Health Risk to Children – An Environmental Toxicologist worked with the City's Department of Health. She strengthened connections between local health organizations and oversaw projects to help families understand and manage children's health, especially with regard to asthma and lead.

"[The program] allowed us to tie into the community and the disruption on the streets. Some of the kids actually went home and discussed things. They liked the opportunity to tell their parents they are not just changing the sewers."

– Teacher, Parkside Middle School

Environmental Education – An inter-disciplinary environmental curriculum was developed for use in the City. Teachers and students were trained in environmental issues, and the importance of environmental stewardship was emphasized in and out of the classroom.

The City of Manchester has completed the financial and administrative requirements of the SEPP while achieving important measurable and lasting environmental, education, and health benefits for the residents.

Timeline of Select SEPP Milestones

